

CLAIMS

1. A plasma display panel comprising:

a first electrode and a second electrode disposed on a first substrate so as to be parallel with each other;

5 a third electrode disposed on a second substrate confronting the first substrate via a discharge space so as to be orthogonal to the first electrode and the second electrode;

a fourth electrode disposed on the second substrate so as to be parallel with the first electrode and the second electrode and to be positioned
10 closer to the first electrode and the second electrode than the third electrode; and

a barrier rib disposed on the second substrate to separate a plurality of main discharge cells, which are formed of the first electrode, the second electrode, and the third electrode, from a plurality of priming discharge cells,
15 which are formed of the first electrode and the fourth electrode or formed of the second electrode and the fourth electrode,

wherein, at least the third electrode is covered with a first dielectric layer and the fourth electrode is disposed on the first dielectric layer, and the fourth electrode is made of material having a softening temperature lower than that of
20 material forming the first dielectric layer.

2. The plasma display panel of Claim 1, wherein the fourth electrode is covered with a second dielectric layer, and material forming the second dielectric layer has a softening temperature not greater than that of material
25 forming the fourth electrode.

3. The plasma display panel of Claim 1, wherein material forming the

first dielectric layer has a softening temperature not greater than that of material forming the third electrode.

4. The plasma display panel of Claim 2, wherein the barrier rib is
5 disposed on the second dielectric layer, and material forming the barrier rib has a softening temperature not greater than that of material forming the second dielectric layer.

5. A method of manufacturing a plasma display panel comprising:
10 forming a first electrode and a second electrode on a first substrate so as to be parallel with each other;
forming a third electrode on a second substrate confronting the first substrate via a discharge space so as to be orthogonal to the first electrode and the second electrode;
15 forming a first dielectric layer to cover the third electrode;
forming a fourth electrode on the first dielectric layer so as to be parallel with the first electrode and the second electrode and to be positioned closer to the first electrode and the second electrode than the third electrode;
forming a second dielectric layer to cover the fourth electrode; and
20 forming a barrier rib on the second substrate to separate a plurality of main discharge cells, which are formed of the first electrode, the second electrode, and the third electrode, from a plurality of priming discharge cells, which are formed of the first electrode and the fourth electrode or formed of the second electrode and the fourth electrode,
25 wherein, at least each of the forming of the first dielectric layer, the forming of the fourth electrode, and the forming of the second dielectric layer includes baking respective paste material for setting, a baking temperature of

the baking the fourth electrode is determined to be lower than a softening temperature of material forming the first dielectric layer and to be higher than a softening temperature of material forming the fourth electrode, and a baking temperature of the baking of the second dielectric layer is determined to be
5 lower than the softening temperature of material forming the fourth electrode and to be higher than a softening temperature of material forming the second dielectric layer.

6. The method of manufacturing a plasma display panel of Claim 5
10 further includes pattern-forming the barrier rib on the second dielectric layer and baking the barrier rib for setting, and a baking temperature of the baking of the barrier rib is not greater than the softening temperature of material forming the second dielectric layer.

15 7. A method of manufacturing a plasma display panel comprising:
forming a first electrode and a second electrode on a first substrate so as to be parallel with each other;
forming a third electrode on a second substrate confronting the first substrate via a discharge space so as to be orthogonal to the first electrode and
20 the second electrode;
forming a first dielectric layer to cover the third electrode;
forming a fourth electrode on the first dielectric layer so as to be parallel with the first electrode and the second electrode and to be positioned closer to the first electrode and the second electrode than the third electrode;
25 forming a second dielectric layer to cover the fourth electrode; and
forming a barrier rib on the second substrate to separate a plurality of main discharge cells, which are formed of the first electrode, the second

electrode, and the third electrode, from a plurality of priming discharge cells, which are formed of the first electrode and the fourth electrode or formed of the second electrode and the fourth electrode,

wherein, at least each of the forming of the third electrode, the forming of
 5 the first dielectric layer, the forming of the fourth electrode, the forming of the second dielectric layer, and the forming of the barrier rib includes baking respective paste material for setting;

after the baking of the third electrode and the baking of the first
 dielectric layer are simultaneously performed, the baking of the fourth electrode
 10 follows, and then the baking of the second dielectric layer and the baking of the barrier rib are simultaneously performed;

a baking temperature of the baking of the fourth electrode is lower
 than the materials forming the third electrode and the first dielectric layer, and
 is not less than a softening temperature of material forming the fourth
 15 electrode;

and a baking temperature of the baking of the second dielectric layer
 and the barrier rib is lower than the softening temperature of material forming
 the fourth electrode, and is not less than a softening temperature of a material
 having the highest softening temperature of materials forming the second
 20 dielectric layer and the barrier rib.

8. A method of manufacturing a plasma display panel comprising:

forming a first electrode and a second electrode on a first substrate
 so as to be parallel with each other;
 25 forming a third electrode on a second substrate confronting the first
 substrate via a discharge space so as to be orthogonal to the first electrode and
 the second electrode;

forming a first dielectric layer to cover the third electrode;

forming a fourth electrode on the first dielectric layer so as to be parallel with the first electrode and the second electrode and to be positioned closer to the first electrode and the second electrode than the third electrode;

5 forming a second dielectric layer to cover the fourth electrode; and

 forming a barrier rib on the second substrate to separate a plurality of main discharge cells, which are formed of the first electrode, the second electrode, and the third electrode, from a plurality of priming discharge cells, which are formed of the first electrode and the fourth electrode or formed of the
10 second electrode and the fourth electrode,

 wherein, at least each of the forming of the third electrode, the forming of the first dielectric layer, the forming of the fourth electrode, the forming of the second dielectric layer, and the forming of the barrier rib includes baking respective paste material for setting;

15 after the baking of the third electrode and the baking of the first dielectric layer are simultaneously performed, the baking of the fourth electrode, the baking of the second dielectric layer, and the baking of the barrier rib are simultaneously performed;

 a baking temperature of the baking of the fourth electrode, the
20 second dielectric layer, and the barrier rib is lower than materials forming the third electrode and the first dielectric layer, and is not less than a softening temperature of a material having the highest softening temperature of materials forming the fourth electrode, the second dielectric layer, and the barrier rib.